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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,318	10/28/2003	Jorge Guillermo Milke-Rojo	130699	4851

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EXAMINER

ZEC, FILIP

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/695,318	Applicant(s) MILKE-ROJO ET AL.	
	Examiner Filip Zec	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 10-14 and 16-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,098,408 to Levinson et al. Looking at FIG. 4, one notices the teachings claimed by the applicant, namely a temperature regulator (48) for an X-ray device (22, FIG. 1; col 1, line 25), comprising a controller (60), which receives data from the temperature sensor (54), determines whether the temperature should be raised or lowered (col 7, lines 30-42) and switches (using the voltage driver 110, FIG. 5) the voltage/current contact in the solid state (col 4, line 55) thermoelectric device (30), comprising a positive and a negative mode (48, 50, FIG. 3) directly connected to a voltage source (col 5, lines 60-61). An external cooling device, a heat sink, is connected to the system removing the thermal energy from the thermoelectric device (32).

3. Claims 1-3, 5-7, 16-19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,940,784 to El-Husayni. Looking at FIG. 3A and 3B, one notices the teachings claimed by the applicant, namely a temperature regulator, comprising a controller (64), which receives data from the temperature sensor (18 and 46, FIG. 1A), determines whether the temperature should be raised or lowered and switches the voltage/current contact in the solid state (32 and 54, FIG. 1A) thermoelectric device, comprising a positive and a negative mode (30, 50, FIG. 2) directly connected to a voltage source (60). An external cooling device, a liquid

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cooling system, is connected to the system removing the thermal energy from the thermoelectric device (40).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,098,408 to Levinson et al. Levinson discloses applicant's basic inventive concept, a temperature regulator for an X-ray device, substantially as claimed with the exception of stating the temperature range of 25-35°C at which the device will be kept under. However, Levinson teaches a table into which the user is able to input the temperature range data at which the device will be kept. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Levinson, by specifying the temperature range of 25-35°C at which the device will be kept in order to preserve the energy of the refrigerating device since the normal room temperature is approximately 25-35°C.

6. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,098,408 to Levinson et al., in view of U.S. Patent 6,370,881 to Maydanich. Levinson discloses applicant's basic inventive concept, a temperature regulator for an X-ray device, substantially as claimed with the exception of using a liquid external heat exchange device for removing thermal energy from the system. Maydanich shows using a liquid cooling system as a

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secondary cooling system to be old in the temperature regulating art (58, FIG. 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teaching of Maydanich to modify the system of Levinson, by using a liquid cooling system as a secondary cooling system in order to improve the quantity of heat energy removed. Also, since the liquid cooling system would require the use of a pump/condenser/evaporator circuit, it would be obvious to have the system away from the X-ray device, in order to prevent possible corrosion defects on the pipes circulating the refrigerant.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,996,413 to McDaniel, David L. et al. teaches an apparatus and method for reading data from an image detector.

U.S. Patent 4,336,444 to Bice, Howard W. et al. teaches an apparatus and method for converting electrical energy into heat energy.

U.S. Patent 5,596,200 to Sharma, Sukhdev R. et al. teaches a low dose mammography system.

U.S. Patent 6,201,249 to Yamayoshi, Junichi teaches an X-ray imaging system.

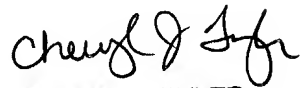
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Filip Zec whose telephone number is (703) 306-3446. The examiner can normally be reached on Monday through Friday, with the exception of every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Filip Zec  
Examiner  
Art Unit 3744

  
**CHERYL J. TYLER**  
**PRIMARY EXAMINER**

FZ